

Work Order ID 158148

Monday, March 13, 2017 10:45:04 AM

158148

Page 1

Item ID: D3508-11 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Wearplate Aft Center
Start Date: 3/14/2017 Start Qty: 4.00 ***4*** Cust Item ID:
Required Date: 3/20/2017 Req'd Qty: 4.00 ***4*** Customer:
Reference: SCHEDULE/S

Approvals: Process Plan: DAS 21 9-89 Date: MAR 13 2017 Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
D3508	Rev C

100

0.00

100

Waterjet

FLOW WATER JET

Memo

0.08

FLOW CNC Waterjet

1-Cut as per Dwg D3508 Dwg Rev: C Prog Rev: C 2-
Deburr if necessary4 PR 17/03/14

110

0.00

110

QC

QC2- Inspect parts off machine FAI/FAIB

Memo

0.01

Quality Control

4 PR 17/03/14

120

0.00

120

QC

QC8- Inspect parts - second check

Memo

0.01

Quality Control

4 PR 17/03/14

DAS
38
9-89
MAR 15 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐								
Misidentified ☐	Past Due ☐	OTHER :							

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Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130 *130* Brake NC Brake NC	NC BRAKE Memo 1-Form on brake using DT8326 and DT8261as per Dwg D3508	0.04 0.05			DAS 30 9-89	(4)			MAR 15 2017
140 *140* QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 0.01				4			DAS 38 9-89 MAR 15 2017
150 *150* Powdercoat Powder Coating	Grey Sandtex(Ref:4.3.5.6) per QSI005 4.3 M134858 Memo START TIME: <u>11:00</u> OVEN TEMPERATURE: <u>320</u> FINISH TIME: <u>11:30</u>	0.00 0.03				4	170323		DAS 34 9-89

DQA: _____ Date: _____



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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
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Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160 *160* QC Quality Control	QC3- Inspect Part Finish Memo	0.00 0.01				<u>4</u>			DAS 38 9-89 MAR 24 2017
170 *170* Packaging Packaging	Identify as per dwg & Stock Location: <u>FP-002</u> Memo LOCATION : FP002	0.00 0.01				<u>x4</u>	<u>q</u>	<u>17103126</u>	DAS 15 6-89
180 *180* QC Quality Control	QC21- Final Inspection - Work Order Release Memo	0.00 0.07						<u>17/3/27</u>	<u>27</u> MAR 27 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
				Completed By					
				Lead hand / Supervisor Approval Verification					
				QC / QA Coordinator Approval					

Root Cause				FAULT CATEGORY			
Environment ☐	☐	No Re-verification ☐	☐	Pressure/Forced ☐	☐	Temperature/Cure ☐	☐
Design ☐	☐	Operator ☐	☐	Bending ☐	☐	Set-up ☐	☐
Doc/Data ☐	☐	Offset/Setup ☐	☐	Centre Not Concentric ☐	☐	BOM/Route ☐	☐
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Misidentified ☐	☐	Past Due ☐	☐				

Picklist Print

Monday, March 13, 2017 10:45:03 AM

Page 1
T

Work Order ID: 158148

158148

Parent Item: D3508-11

D3508-11

Parent Item Name: Wearplate Aft Center

Start Date: 3/14/2017

Required Date: 3/20/2017

Start Qty: 4.00

Required Qty: 4.00

Comments: IPP Rev:A New Issue 07.06.12 EC
IPP Rev:B Rev C dwg 07-12-06 DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M304S20GA		Purchased		No		100	sf	150.4110	0.5887	2.478737			

M304S20GA

304/316 .040 Sheet

**

PR 17/03/14

Location

Loc Qty

Loc Code

MAT020

149.59

m134495

0.2

m134982

0.1

m135327

2

m135689

1.44

m136327

25.05

m136568

56.8

m137041

64

MAT20

0.821

m133901

0.821

2.9

DQA: _____ Date: _____



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Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐																																																																						
Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐																																																																						
Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐																																																																						
Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐																																																																						
Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐																																																																						
OTHER :																																																																									

DART AEROSPACE LTD		Work Order:	158148
Description: Wearplate		Part Number:	D3508-11
Inspection Dwg: D3508 Rev: C		Page 1 of 1	

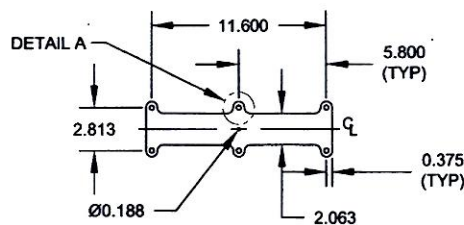
FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

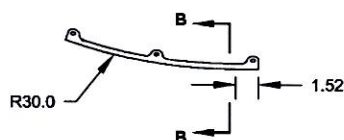
Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
2.063	+/-0.010	2.070	✓		pc-01	
2.813	+/-0.010	2.816	✓		tape	
0.375	+/-0.010	0.373	✓			
5.625	+/-0.010	5.627	✓			
22.500	+/-0.010	22.500	✓			
26.50	+/-0.030	26.50	✓			
Ø0.188	+0.005/-0.001	0.189	✓			
0.300	+/-0.010	0.304	✓			
0.300	+/-0.010	0.302	✓			
0.038	+/-0.010	0.034	✓			

Measured by:	PR	Audited by:	DA: 38 9-89	Prototype Approval:	N/A
Date:	17/03/14	Date:	MAR 15 2017	Date:	N/A

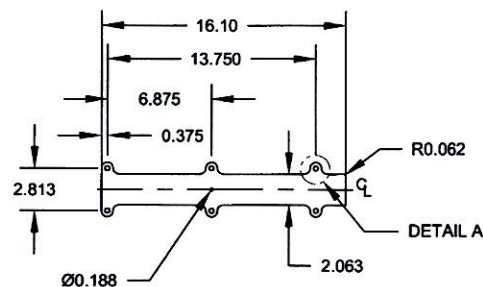
Rev	Date	Change	Revised by	Approved
A	08.07.24	New Issue	KJ/DD	AS



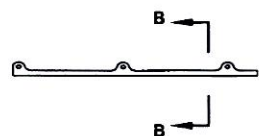
D3508-1 FLAT PATTERN



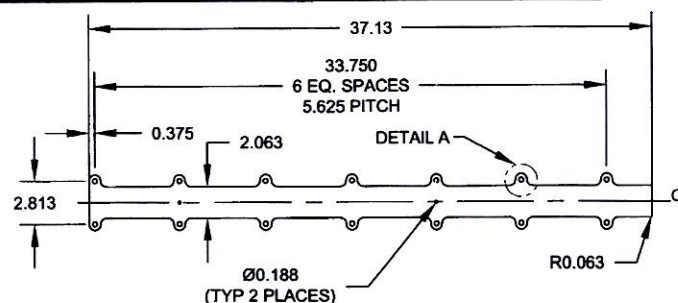
D3508-1 BENDING DETAIL
(MAKE FROM D3508-1F)



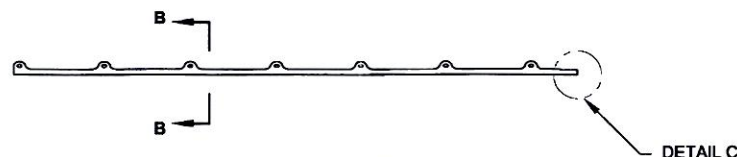
D3508-7F FLAT PATTERN



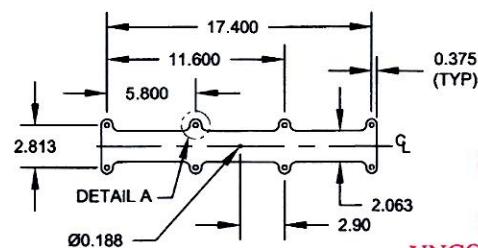
D3508-7F BENDING DETAIL
(MAKE FROM D3508-7F)



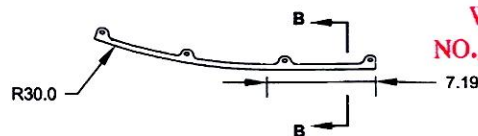
D3508-3 FLAT PATTERN



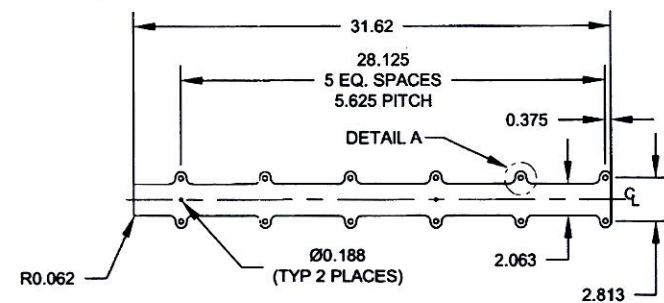
D3508-3 BENDING DETAIL
(MAKE FROM D3508-3F)



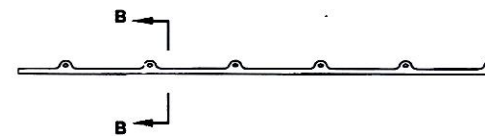
D3508-9F FLAT PATTERN



D3508-9F BENDING DETAIL
(MAKE FROM D3508-9F)



D3508-5 FLAT PATTERN



D3508-5 BENDING DETAIL
(MAKE FROM D3508-5F)

NOTES:

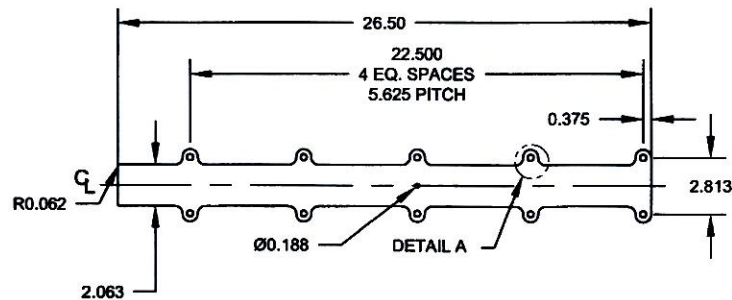
- 1) MATERIAL: AISI 304/316 SS SHEET PER AMS 5513 OR AMS 5524, 20 GAUGE (0.038 THICK)
(REF. DART MATERIAL SPEC M304S20GA)
- 2) FINISH: POWDER COAT GREY SANTEX (4.3.5.6) PER DART QSI 005 4.3
- 3) WELD PER DART QSI 004
- 4) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) UNITS: INCHES UNLESS OTHERWISE NOTED
- 6) BREAK SHARP EDGES: 0.005 TO 0.015
- 7) IDENTIFICATION: NONE
- 8) WEIGHT: D3508-1 - 0.47 lbs, D3508-3 - 0.95 lbs, D3508-5 - 0.77 lbs,
D3508-7 - 0.39 lbs, D3508-9 - 0.45 lbs, D3508-11 - 0.64 lbs
D3508-13 - 0.25 lbs

SHOP COPY
RETURN TO
ENGINEERING

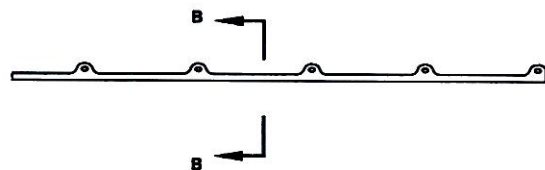
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 158148 MJS
1703-13

RELEASED
07.11.16

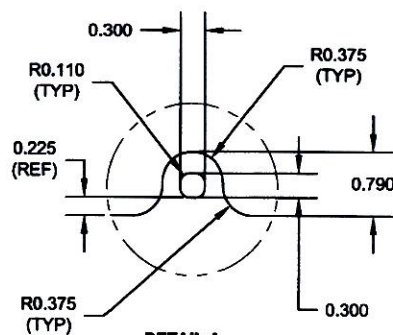
C	ADD -9/11/13 MOVE TAB OUTBOARD (2.813 WAS 2.733) CHANGE DRAWING FORMAT	PH	07.04.20
B	CHANGE STAINLESS STEEL, WIDEN	PH	06.10.27
A	NEW ISSUE	PH	06.04.21
REV.	DESCRIPTION	BY	DATE
DESIGN	204	DART AEROSPACE USA, INC PORT HADLOCK, WA	
DRAWN	244		
CHECKED	120	DRAWING NO.	REV. C
MFG. APPR.	120	D3508	SHEET 1 OF 2
APPROVED	120	TITLE	SCALE
DE APPR.	120	WEARPLATE	1:8
DATE	07.04.20	COPYRIGHT © 2007 BY DART AEROSPACE USA, INC THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	



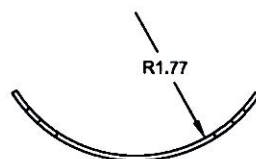
D3508-11F FLAT PATTERN



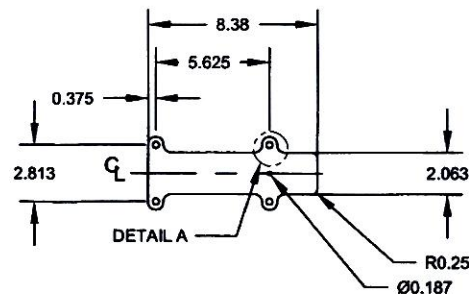
D3508-11 BENDING DETAIL
(MAKE FROM D3508-11F)



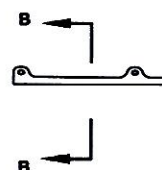
DETAIL A
(SCALE 2:3)



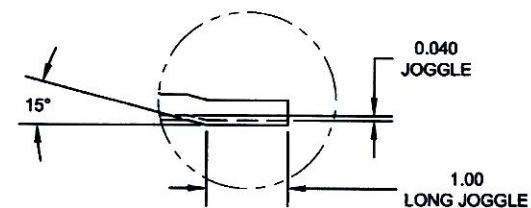
SECTION B-B
(SCALE 2:3)



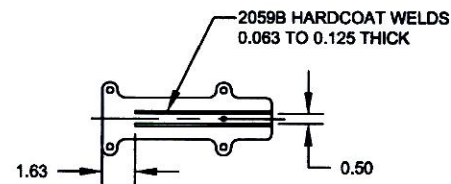
D3508-13F FLAT PATTERN



D3508-13 BENDING DETAIL
(MAKE FROM D3508-13F)



DETAIL C
(SCALE 1:2)



D3508-13 WELDING DETAIL

RELEASED
07-11-16

DESIGN	PH	DART AEROSPACE USA, INC
DRAWN	PH	PORT HADLOCK, WA
CHECKED	PH	DRAWING NO. D3508
MFG. APPR.	PH	REV. C
APPROVED	PH	SHEET 2 OF 2
DE APPR.	PH	TITLE WEARPLATE
DATE	07.04.20	SCALE 1:5

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